

**REVIEW OF *PARADORYDIUM* KIRKALDY
(HOMOPTERA, AUCHENORRHYNCHA,
CICADELLIDAE) FROM TURKEY,
WITH THE DESCRIPTION OF A NEW SPECIES¹**

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ABSTRACT: The following species of *Paradorydium* are recorded from Turkey: *P. mustafai* sp.n., *P. occidentale* Lindberg (new record) and *P. paradoxum* (Herrich-Schäeffer). Taxonomical features and figures of the species are given.

KEY WORDS: *Paradorydium mustafai*, sp.n., Homoptera, Cicadellidae, Auchenorrhyncha, Turkey

Paradorydium is one of only four genera of the Old World leafhopper tribe Paradorydiini (Linnavuori, 1979). The distinctive elongate shape (Fig. 1) of the members of this tribe has been likened to the seeds of the grasses on which they live. Sixteen species were recorded from Africa by Linnavuori (1979) and ten species from the Palaearctic region by Nast (1972), including *P. paradoxum* Herrich-Schaeffer). In the present work, two other species, *P. occidentale* Lindberg and *P. mustafai* sp. nov., are recorded from Turkey. All three species are described and a key provided for their separation.

Key to the species of *Paradorydium* from Turkey

1. Length of vertex approximately 6.5 X length of pronotum. Aedeagus with a pair of apical processes (Fig. 11).....*mustafai*
- Length of vertex 4-5 X length of pronotum. Aedeagus without apical processes.....2
- 2(1) Aedeagus with a pair of basal processes (Fig. 33)*paradoxum*
- Aedeagus without a pair of basal processes (Fig. 21).....*occidentale*

***Paradorydium mustafai* sp. n. (Figs. 1-11)**

Description: Length: male 8.8 - 9.7 mm, female 11.8 - 12.2 mm. Yellowish-green. Crown and hemelytra with fine brown punctation (only a female with red punctation). Face with distinct dark lateral bands. Veins of forewing brownish-yellow, granulated.

Crown (Figs. 3-4) tetrahedral in cross section, median, lateral and ventral carinae distinct; vertex 6.5 X as long as median length of pronotum, sides concave, apex pointed and curved dorsad, median carina reaching to apex, Hemelytra transparent with sharp apex, enclosing entire abdomen.

Male genitalia as in Figs. 6-11. Side lobes of pygophore insinuate apically. Subgenital plate with apical margin forming an inner process and an outer lobe. Stem of aedeagus elongate, slightly re-curved dorsad, with falcate apical appendages.

Female genitalia as in Fig. 5.

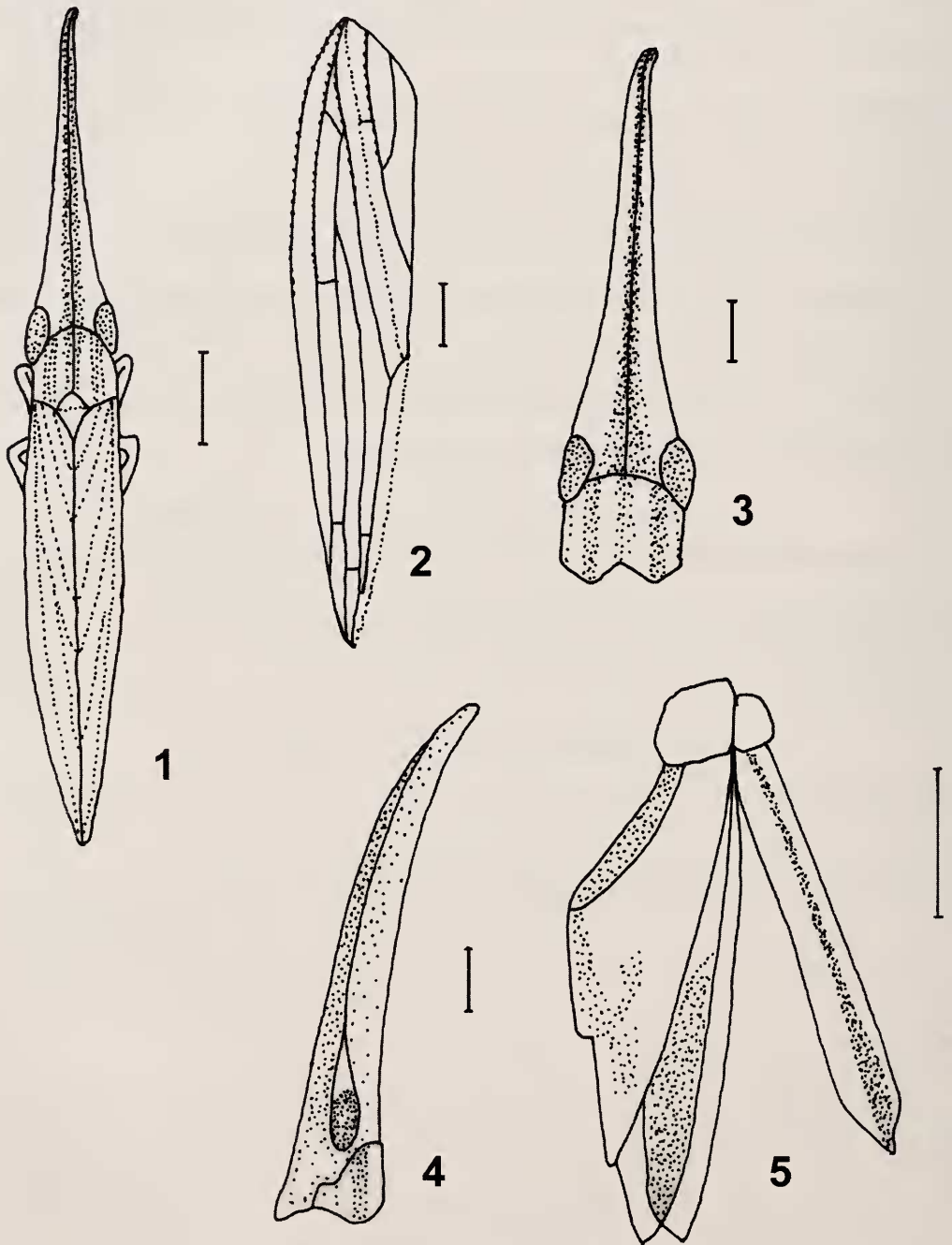
Material Studied: Holotype: male, TURKEY: Southwest Anatolia, Antalya, Manavgat, Hacıobası, 22.06.2002, on *Bothriochloa ischaemum*. Paratypes: 2 males and 3 females, TURKEY, Antalya, Manavgat, Hacıobası, 22.06.2002, on *Bothriochloa ischaemum*, 2 males, Antalya, Manavgat, Örenşehir, 15.10.2001, 8 males and 4 females, Antalya, Manavgat, Hacıobası, 26.08.2003, on *Bothriochloa ischaemum*. Holotype and paratypes are deposited in Centre for Entomological Studies Ankara and 1 male and 1 female in the Natural History Museum, London.

¹ Received on March 10, 2004. Accepted on January 3, 2005.

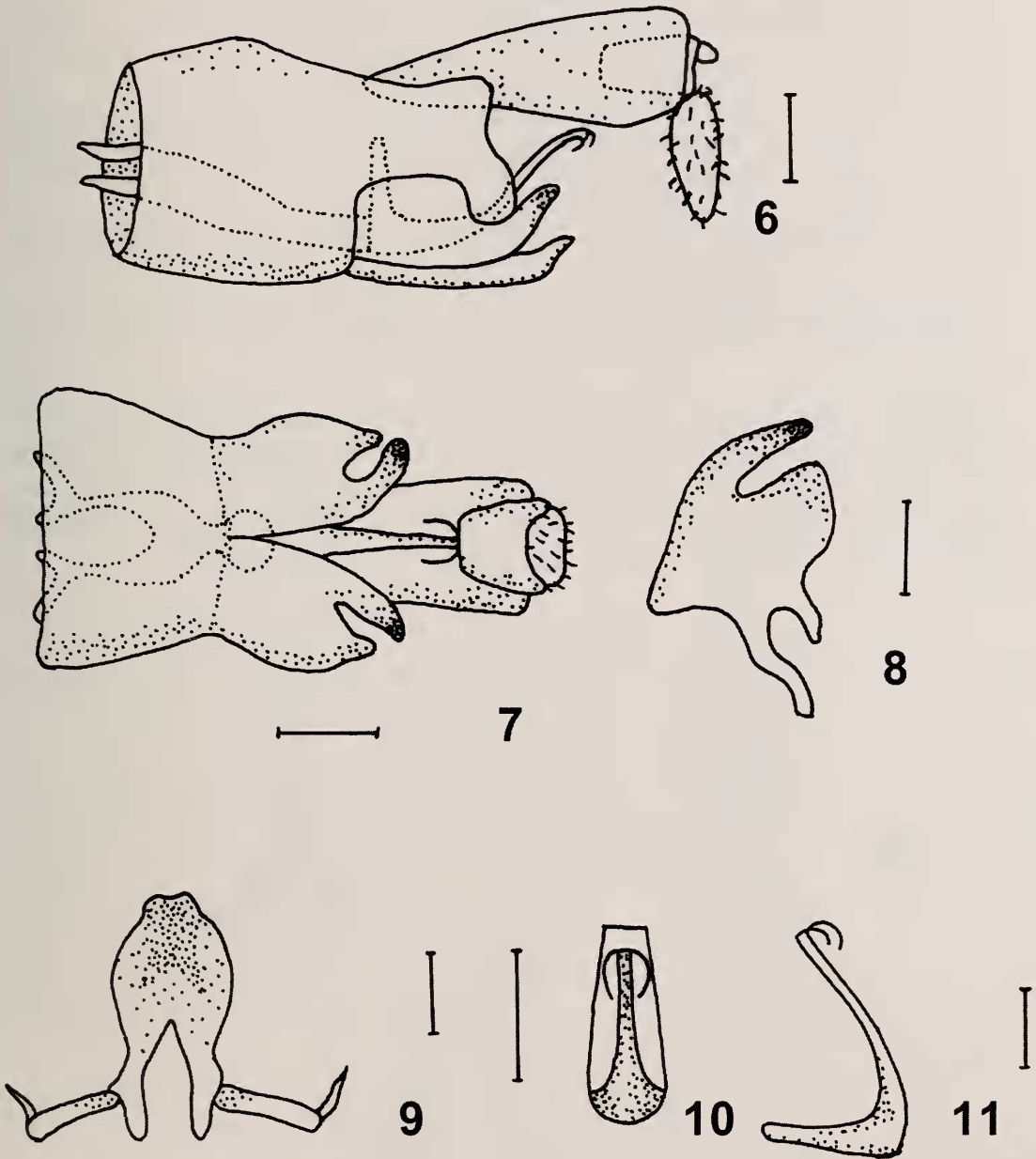
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Etymology: The name of this new species is dedicated to my father Mustafa Demir.

Remarks: Similar to *P. dimorphum* Linnavuori from Africa and *P. paradoxum*, in the shape of the subgenital plate but differs from the former species by its longer crown with sides concave and more elongate lateral lobe of the subgenital plate and from both species in having a pair of apical aedeagal processes.



Figs. 1-5. *Paradorydium mustafai* sp. n., holotype male. 1. Habitus. Scale bar = 1.0 mm. 2. Left forewing. 3. Crown, dorsal view. 4. Crown, lateral view. 5. Paratype female, distal portion of abdomen, lateral view. Figures 2-5, scale bar = 0.5 mm.



Figs. 6-11. Male genitalia of *Paradorydium mustafai* sp. n., holotype male. 6. Genital capsule and anal tube, lateral view. 7. Same, ventral view. 8. Right style, dorsal view. 9. Connective, dorsal view. 10. Aedeagus, posterior view. 11. Aedeagus, lateral view. Scale bar = 0.1 mm.

***Paradorydium occidentale* Lindberg (Figs. 12-22)**

Paradorydium occidentale Lindberg, 1954: 208, Figs. 51 1-m.

Description: Length: male 4.5 – 5.3 mm, female 6.2 – 7.1 mm. Yellowish-green. Females darker than males. Crown and hemelytra with fine brownish-green punctation (some specimens [1 male and 4 females] with red punctation). Face with distinct dark lateral bands. Veins colored light yellow, indistinctly granulated.

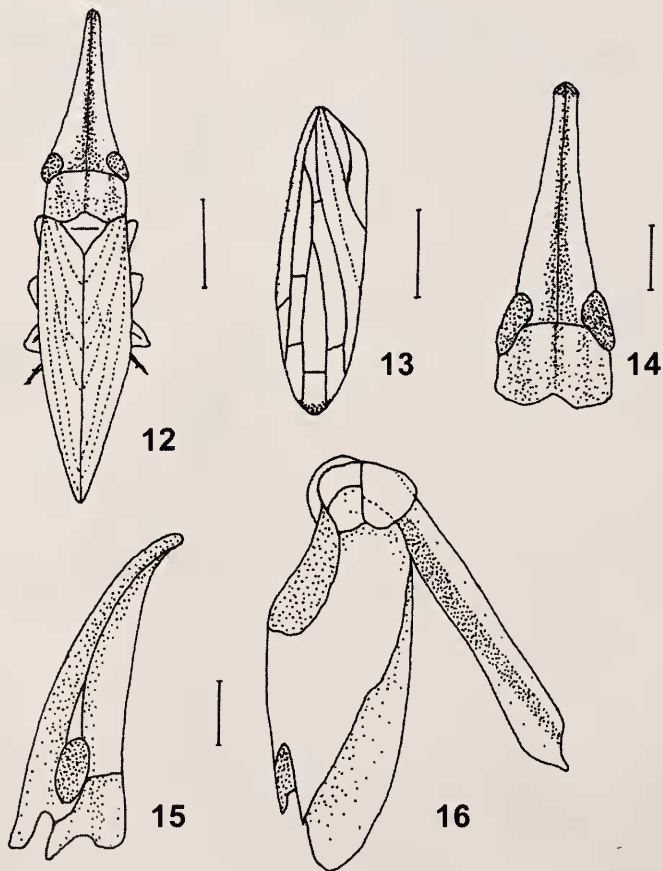
Crown (Figs. 14-15) tetrahedral in cross section, slightly flattened with apex slightly truncate; vertex 4-4.5 X as long as median length of pronotum (male and female respectively), median carina reaching to apex, lateral carinae more distinct than median carinae. Hemelytra transparent with slightly rounded apex enclosing entire abdomen.

Male genitalia as in Figs. 17-22. Side lobes of pygophore conical. Stem of aedeagus elongate, slightly recurved dorsad, without processes.

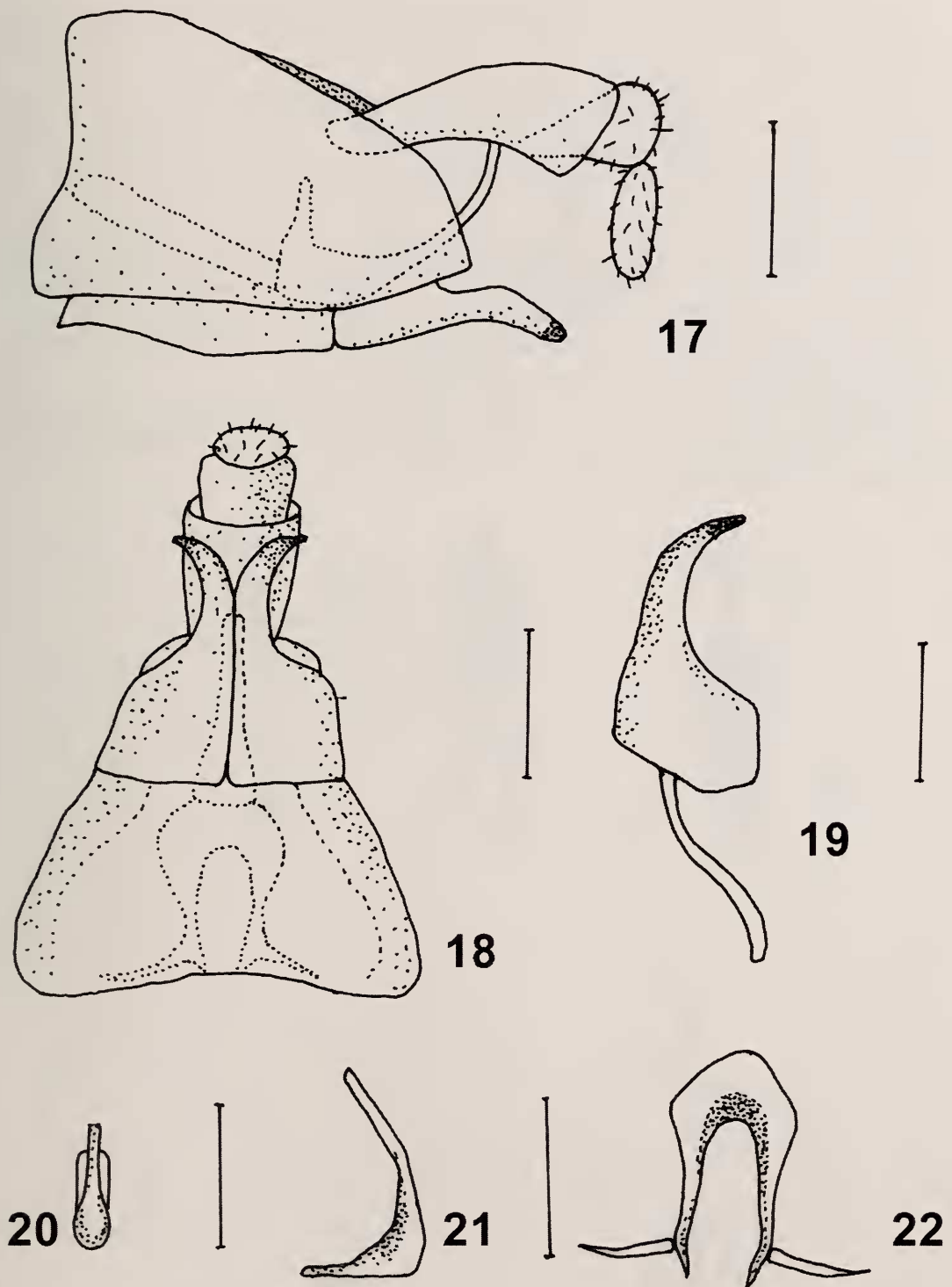
Female genitalia as in Fig. 16.

Material Studied: TURKEY: Southwest Anatolia, Antalya, Gazipaşa, Çalıpınar, 25 m, 12.05.2001 23♂ 30♀, on *Graminae*. Antalya, Manavgat, Demirciler, 40 m, 11.05.2001 1♂, on *Graminae*.

Remarks: The specimens from Turkey (new record) were identified by reference to the original figures and by comparison (by M. D. Webb) with a male and female from Cape Verde Island determined by Lindberg as *P. paradoxum*, deposited in the Natural History Museum, London. The species was previously recorded from the Canary Islands.



Figs 12-16. *Paradorydium occidentale*. 12. Habitus. 13. Left forewing. Scale bar = 1.0 mm. 14. Crown, dorsal view. 15. Crown, lateral view. 16. Paratype female, distal portion of the abdomen, lateral view. Figures 14-16, scale bar = 0.5 mm.



Figs. 17-22. Male genitalia of *Paradorydium occidentale*. 17. Genital capsule and anal tube, lateral view. 18. Same, ventral view. 19. Right style, dorsal view. 20. Aedeagus, posterior view. 21. Aedeagus, lateral view. 22. Connective, dorsal view. Scale bar = 0.1 mm.

***Paradorydium paradoxum* (Herrich-Schäffer) (Figs. 23-33)**

Jassus paradoxum Herrich-Schäffer, 1837.

Description: Length: male 6.5 – 7.0 mm, female 7.4 – 8.2 mm. Yellowish-green. Females darker than males. Crown and hemelytra with fine brownish-green punctation. Veins colored light yellow, indistinctly granulated.

Crown (Figs. 25-26) tetrahedral in cross section, apex slightly flattened; vertex 4-5 X as long as median length of pronotum (male and female respectively). Hemelytra transparent with slightly sharp apex enclosing entire abdomen.

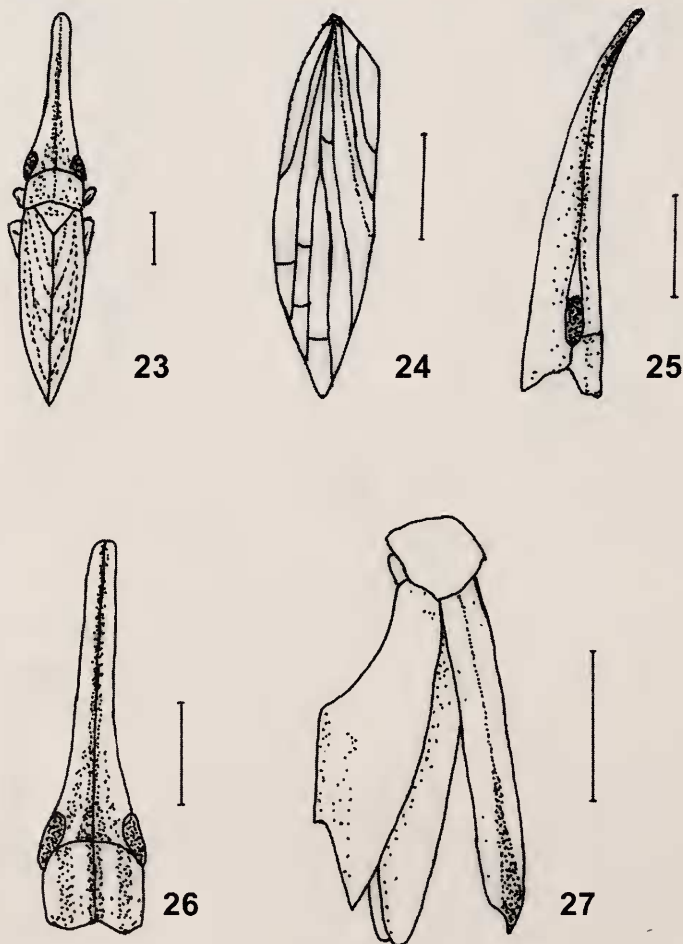
Male genitalia as in Figs. 28-33. Aedeagus with a pair of narrow basal processes.

Female genitalia as in Fig. 27.

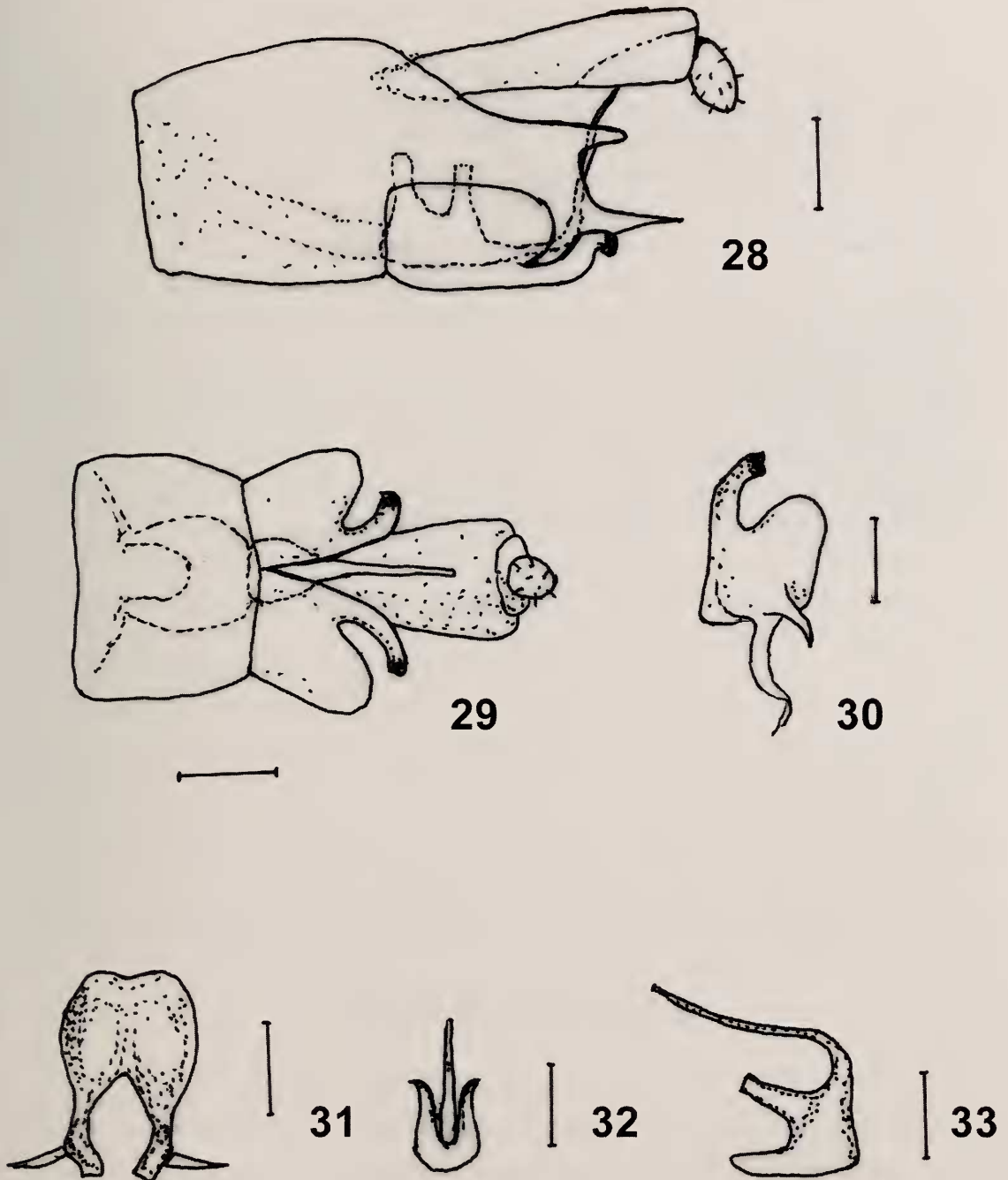
Material Studied: TURKEY: Southwest Anatolia, Antalya, Düzlerçamı, 280 m, 22 July 2001 2♂2♀, on *Graminae*, Middle Anatolia, Ankara, Sincan Mülk. Ayaş Mts. E. 1000 m, 20.07.2000 1♀, on *Graminae*, Sincan Mülk. Ayaş Mts. E. 1000 m, 17.06.2000 1♀, on *Graminae*, Kızılcahamam, Soğuksu, 1300 m, 07.06.1997 4♀, on *Graminae*, Soğuksu, 1300 m, 20.07.1997 2♂, on *Graminae*.

Distribution in Turkey: Middle Anatolia: Ankara and Southeast Anatolia: Diyarbakır (Dlabola, 1957; Lodos & Kalkandlen, 1982).

Remarks: Differing from the similar *Paradorydium lanceolatum* Burmeister in the flattened apex of the crown and aedeagus with narrow rather than triangular basal processes (D'Urso, 1992).



Figs. 23-27. *Paradorydium paradoxum*. 23. Habitus. 24. Left forewing. Scale bar = 1.0 mm. 25. Crown, lateral view. 26. Crown, dorsal view. 27. Paratype female, distal portion of the abdomen, lateral view. Scale bar = 0.5 mm.



Figs. 28-33. Male genitalia of *Paradorydium paradoxum*. 28. Genital capsule and anal tube, lateral view. 29. Same, ventral view. 30. Right style, dorsal view. 31. Connective, dorsal view. 32. Aedeagus, posterior view. 33. Aedeagus, lateral view. Scale bar = 0.1 mm.

ACKNOWLEDGEMENTS

I thank Dr. H. Abdul-Nour, Dr. M. D. Webb (Department of Entomology, Natural History Museum, London, England), and my parents for their help during different phases of this project.

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